

IN THE CLAIMS

Please cancel Claims 1, 3, 5-7, 9, 18-21 and 24-30 without prejudice or disclaimer of the subject matter contained therein and add new Claims 31-44.

Please add the following new Claims 31-44 as follows:

31. (New) An air conditioning apparatus for a vehicle having a passenger compartment, said air conditioning apparatus comprising:

a case forming an air passage, said case defining a bottom portion; and

a cooling heat exchanger, for cooling air passing therethrough, disposed in said case, wherein:

said cooling heat exchanger includes:

a core portion having a plurality of tubes extending in a longitudinal direction, through which a fluid flows to perform a heat exchange with air, and

a tank portion for distributing the fluid into said tubes or for joining the fluid from said tubes, said tank portion being provided on one end side of each tube in the longitudinal direction;

said cooling heat exchanger is disposed in said case to be inclined from a horizontal direction by a predetermined angle to define an upper end and a lower end so that air is introduced into said cooling heat exchanger from below and flows upwardly, said lower end of said cooling heat exchanger being spaced from said bottom portion of said case to form a lower space under said cooling heat exchanger;

said tank portion is positioned at said lower end of cooling heat exchanger;

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said cooling heat exchanger is inclined in the same direction as the longitudinal direction of said tubes so that one end of said tubes in the longitudinal direction becomes lower than the other end of said tubes in the longitudinal direction;

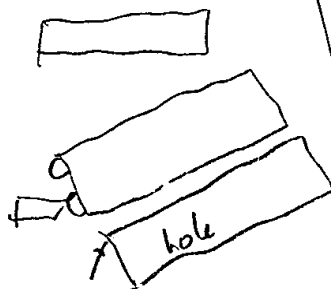
said cooling heat exchanger is disposed so that a flow direction of air flowing into said lower space under said cooling heat exchanger is generally parallel to said cooling heat exchanger and approximately perpendicular to the longitudinal direction of said tubes;

said case has an air inlet through which air is introduced into said lower space under said cooling heat exchanger, approximately horizontally;

said cooling heat exchanger is disposed at an immediate upper side of said air inlet to approximately contact said case at an immediate upper position of said air inlet;

said case has an upper end peripheral portion for defining said air inlet on an upper side; and

said upper end peripheral portion of said case extends obliquely downwardly along a surface immediately under said cooling heat exchanger, and further extends downwardly toward (the bottom portion) at a position proximate to boundary between said core portion and said tank portion.



32. (New) The air conditioning apparatus according to Claim 31,
wherein:

said case has a drain hole for draining condensed water generated in said cooling heat exchanger; and

said drain hole is provided generally beneath said lower end of said cooling heat exchanger.

33. (New) The air conditioning apparatus according to Claim 31,
wherein:

said bottom portion is inclined to correspond to said cooling heat exchanger; and

the drain hole is provided at a lowest position of said bottom portion.

34. (New) The air conditioning apparatus according to Claim 33,
wherein said air inlet is provided between said cooling heat exchanger and said bottom portion in an up-down direction.

35. (New) The air conditioning apparatus according to Claim 31, further comprising:

a heating heat exchanger for heating air from said cooling heat exchanger, said heating heat exchanger being disposed on an upper side of said cooling heat exchanger, so that a bypass passage through which air bypasses said heating heat exchanger is provided; and

an air mixing door, disposed between said cooling heat exchanger and said heating heat exchanger, for adjusting a ratio between an amount of air passing through said heating heat exchanger and an amount of air passing through said bypass passage.

36. (New) The air conditioning apparatus according to Claim 31, further comprising:

a blower unit for blowing air into said case,

wherein said blower unit is disposed so that air blown by said blower unit flows approximately horizontally into said lower space under said cooling heat exchanger through said air inlet.

37. (New) The air conditioning apparatus according to Claim 31, wherein the air inlet has a dimension approximately equal to the tubes in the longitudinal direction.

38. (New) An air conditioning apparatus (in combination) with a vehicle having a passenger compartment, said air conditioning apparatus comprising:

a case forming an air passage, said case defining a bottom portion; and

a cooling heat exchanger for cooling air passing therethrough, disposed in said case, wherein:

said cooling heat exchanger has a plurality tubes extending in a longitudinal direction, through which a fluid flows;

said cooling heat exchanger is disposed in said case to be inclined from a horizontal direction by a predetermined angle to define an upper end and a lower end so that air is introduced into said cooling heat exchanger from below and flows upwardly, said lower end of said cooling heat exchanger being spaced from said bottom portion of said case to form a lower space under said cooling heat exchanger;

said cooling heat exchanger is inclined in the same direction as the longitudinal direction of said tubes so that one end of said tubes in the longitudinal direction becomes lower than the other end of said tubes in the longitudinal direction, condensation occurring on said tubes flowing from said upper end of said heat exchanger to said lower end of said heat exchanger;

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said cooling heat exchanger is disposed so that a flow direction of air flowing into said lower space under said cooling heat exchanger is generally parallel to said cooling heat exchanger and approximately perpendicular to the longitudinal direction of said tubes;

said case has a drain hole for draining condensed water generated in said cooling heat exchanger; and

said drain hole is provided generally beneath said lower end of said cooling heat exchanger.

39. (New) The combination according to Claim 38, wherein:

said cooling heat exchanger includes a tank portion for distributing fluid into said tubes and for joining fluid from said tubes, said tank portion being provided at least on one end side of each tube in the longitudinal direction;

said tank portion includes a joint portion having an inlet for introducing fluid into said cooling heat exchanger and an outlet for discharging fluid from said cooling heat exchanger.

40. (New) The combination according to Claim 38, wherein:

said bottom portion is inclined to correspond to said cooling heat exchanger; and

said drain hole is provided at a lowest position of said bottom portion.

41. (New) The combination according to Claim 40, wherein:

said case has an air inlet through which air blown by said blower unit flows into the lower side of said cooling heat exchanger in said flow direction; and

said air inlet is formed between said cooling heat exchanger and said bottom portion along each inclination of said cooling heat exchanger and said bottom portion.

42. (New) The combination according to Claim 38, further comprising:

a heating heat exchanger for heating air from said cooling heat exchanger, said heating heat exchanger being disposed on an upper side of said cooling heat exchanger so that a bypass passage through which air bypasses said heating heat exchanger is formed; and

an air mixing door, disposed between said cooling heat exchanger and said heating heat exchanger, for adjusting a ratio between an amount of air passing

through said heating heat exchanger and an amount of air passing through said bypass passage.

43. (New) The combination according to Claim 38, further comprising:
a blower unit for blowing air into said case, wherein:
said case is adapted to be disposed at a center portion on a front side of
the passenger compartment; and
said blower unit is adapted to be shifted from said case in the vehicle
width direction.

44. (New) The combination according to Claim 38, wherein said cooling
heat exchanger further has a plurality of corrugated fins each of which is disposed
between adjacent both tubes.